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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,648	03/22/2002	Yi-Chung Chan	VIAP0013USA	6287

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EXAMINER

PATEL, GAUTAM

ART UNIT

PAPER NUMBER

2655

DATE MAILED: 04/27/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/683,648

Applicant(s)

CHAN, YI-CHUNG

Examiner

Gautam R. Patel

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### DETAILED ACTION

1. Claims 1-11 are pending for the examination.

### Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. § 119(a)-(d), which papers have been placed of record in the file.

### NOTES & REMARKS

3. Following points are brought to the Applicants attention for faster prosecution of the application.

- a. Attempts to reach the Applicants were unsuccessful due to no US phone number being provided in the application.
- b. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. For example claim 1 line 3 has a word "comprisinga" and claim 10, line 2 has word "differentiatesthe". Obviously these are typographical errors. Specification also has several of these kind of typographical errors. Applicant's cooperation is requested in correcting all these errors of which Applicant may become aware in the specification.

### Drawings/Objection

4. The drawings are objected for following reasons:

The drawings are objected to under 37 C.F.R. § 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the corrected tracking error signal being "a mirror signal of the tracking error signal" must be shown or the feature cancelled from the claim. No new matter should be entered.

NOTE: By simply correcting the words as suggested in 112 rejection below this drawing objection can be obviated, without changing the drawings.

Applicant is required to submit a proposed drawing correction in response to this Office Action [or change the claims]. Any proposal by the applicant for amendment of the drawings to cure defects must consist of following:

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments, or remarks, section of the amendment, and may be ***accompanied by a marked-up copy of one or more of the figures being amended, with annotations***. Any replacement drawing sheet ***must be identified in the top margin as "Replacement Sheet"*** and include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. ***Any marked-up (annotated) copy showing changes must be labeled "Annotated Marked-up Drawings" and accompany the replacement sheet in the amendment (e.g., as an appendix).***

Correction is required.

### Specification

5. The disclosure is objected for following reasons.

The title of the invention is neither precise nor descriptive. A new title is required which should include, using twenty words or fewer, claimed features that differentiate the invention from the Prior Art. It is recommended that the title should reflect the gist of or the improvement of the present invention.

Correction is required.

### Claim Rejections - 35 U.S.C. § 112

6. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-11 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The corrected tracking error signal [TE\_input] being a mirror signal of the tracking error signal required by the claims is not described in the specification. On pages 5-6, the specification mentions mirror signal [as TE\_input] and figure 4, shows the corrected tracking error signal [fig. 4, 52] but does not explain that only "partial tracking error signal [44] is "mirrored" into the corrected tracking signal and NOT the complete tracking error signal. Accordingly, the specification does not explain to one of ordinary skill in the art at the time of the invention, how to create a corrected tracking error signal which is completely mirror image of the tracking error signal.

7. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-11 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 10-12 "the corrected tracking error signal being a mirror signal of the tracking error signal" is confusing and unclear. It is not clear how "the corrected tracking error signal" is a mirror signal of the original tracking error signal, since both them are quite different from each other in the drawings [fig. 4] and in the specification. Claim 11 has same problem.

NOTE: If the Applicants use the language that the "corrected tracking error signal" [52] consist of partial mirror image of the original tracking error signal [44], after the high point, and consist of the  $\frac{1}{4}$  wave of the original tracking error signal; the above mentioned 112 first and second and drawings problems can be overcome.

**Allowable Subject Matter**

8. Claims 1-11 could be allowed over the prior art of record subject overcoming the 122 first and second rejection above.

NOTE: Claims 1-11 are allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose an optical disc drive which includes a control device and a signal correcting unit which generates "a corrected tracking error signal which consist of  $\frac{1}{4}$  waveform of the original tracking error signal in form of mirror image". It is noted that the closest prior art, Tanaka (US patent 6,388,963) and Ynag (US 6,574,184) shows a similar apparatus which has tracking error signal and corrected tracking error signal and other details. However Tanaka fails to disclose that the corrected tracking error signal consist of partial mirror signal of the tracking error signal.

**Other prior art cited**

Art Unit: 2655

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

- a. Hashimoto et al. (US. patent 5,247,501) "Tracking error detection .."
- b. Sano et al. (US. patent 6,665,257) "Optical head device .."
- c. Kimura et al. (US. patent 4,740,939) "Apparatus for reproducing ..".
- d. Yang (US. patent 6,574,184) **"Apparatus for controlling a mirror signal and method thereof"**.
- e. Overath et al. (US. patent 4,697,258) Apparatus for enabling an autotrack circuit ..".
- f. Maezawa (US. patent 5,844,871) "Optical disk track counting ..".
- g. Tanaka (US. patent 6,388,963) "Signal generation method .."

#### Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is (703) 308-7940. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is (703) 872-9314.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To can be reached on (703) 305-4827.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-4700 or the group Customer Service section whose telephone number is (703) 306-0377.



Gautam R. Patel  
Primary Examiner  
Group Art Unit 2655

April 26, 2004